Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-27. Canceled.

28. (Currently Amended) A method for aluminiding the surface region of a metal substrate, comprising the following steps:

(I) applying at least one layer of a slurry coating to the surface of the substrate; wherein the slurry coating is substantially free of hexavalent chromium, and comprises (a) colloidal silica; (b) ~~and~~ particles of an aluminum-based powder~~, and the aluminum-based powder has~~ having an average particle size in the range of about 0.5 micron to about 200 microns; and (c) an organic stabilizer which contains at least two hydroxyl groups; and

(II) heat-treating the slurry coating, under conditions sufficient to remove volatile components from the coating, and to cause diffusion of aluminum into the surface region of the substrate.

29. (Original) The method of claim 28, wherein the aluminum-based powder in the slurry coating comprises an alloy of aluminum and silicon.

30. (Canceled)

31. (Currently Amended) The method of claim ~~30~~28, wherein the organic stabilizer is selected from the group consisting of alkane diols, glycerol, pentaerythritol, fats, and carbohydrates.

32. (Canceled)

33. (Original) The method of claim 28, wherein the slurry coating is applied to the surface of the substrate by a technique selected from the group consisting of spraying, slip-casting, brush-painting, dipping, pouring, rolling, and spin-coating.

34. (Original) The method of claim 28, wherein the heat treatment of step (II) comprises a preliminary heat treatment to remove the volatile components, and a final heat treatment to diffuse the aluminum into the substrate.

35. (Original) The method of claim 28, wherein the heat treatment is carried out at a temperature in the range of about 650°C to about 1100°C.

36. (Original) The method of claim 28, wherein step (II) comprises a graduated heat treatment.

37. (Original) The method of claim 28, wherein the surface region of the substrate extends to a depth of about 200 microns into the substrate.

38. (Original) A method for aluminiding the surface region of a nickel-based superalloy substrate, comprising the following steps:

(I) spraying at least one layer of a slurry coating on the surface of the substrate; wherein the slurry coating is substantially free of hexavalent chromium, and comprises colloidal silica; particles of an aluminum-based powder; and an organic stabilizer, wherein the aluminum-based powder has an average particle size in the range of about 0.5 micron to about 200 microns; and the organic stabilizer is selected from the group consisting of alkane diols, glycerol, pentaerythritol, fats, and carbohydrates; and then

(II) heat treating the slurry coating in an oven at a temperature of about 650°C to about 1100°C, so as to remove volatile components

from the coating, and to cause diffusion of aluminum into the surface region of the substrate;

wherein the organic stabilizer is present at a level in the range of about 0.1% by weight to about 20% by weight, based on the total weight of the composition;

the colloidal silica is present at a level in the range of about 5% by weight to about 20% by weight, based on silica solids as a percentage of the entire composition; and

the amount of aluminum in the composition exceeds the amount of aluminum present in the substrate by up to about 65 atomic %.

39. (Original) The method of claim 38, wherein the substrate is a turbine engine component.

40-44. Canceled.

45. (New) The method of claim 28, wherein the organic stabilizer is present in an amount sufficient to chemically stabilize the aluminum-based powder during contact with any aqueous component present in the slurry coating.

46. (New) The method of claim 28, wherein the organic stabilizer is present at a level in the range of about 0.1% by weight to about 20% by weight, based on the total weight of the slurry coating.

47. (New) The method of claim 28, wherein the organic stabilizer comprises at least two organic compounds.